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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/716,544

11/20/2003

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MR2919-9/C

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EXAMINER

HAILE, FEBEN

ART UNIT

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2616

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/716,544		MENG, TERESA H.	
	Examiner		Art Unit	
	Feben M. Haile		2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-42 is/are pending in the application. 43-54 D. 2
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 43-54 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/26/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

1. Claims 43-54 rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 27-28, 38, 58-59, 63, 78 of U.S. Patent No. 6,697,375, hereinafter referred to as Meng. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Regarding claim 43, Meng discloses a first transceiver; and a second transceiver, the first transceiver including means for transmitting data at a first power level and a first data rate to said second transceiver, the second transceiver including: second means for receiving the first data; second means for sensing a received power level of the received data; second means for transmitting second data at a second

power level and a second data rate to said first transceiver; and second means for determining the second data rate at which to transmit the second data, said second data rate determined based upon the received power level of the received data and being different from the first data rate (claim 1; a first transceiver; and a second transceiver, the first transceiver including means for transmitting data at a first power level and a first data rate to said second transceiver, the second transceiver including: second means for receiving the first data; second means for sensing a received power level of the received data; second means for transmitting second data at a second power level and a second data rate to said first transceiver; and second means for determining the second data rate at which to transmit the second data, said second data rate determined based upon the received power level of the received data and being different from the first data rate).

The instant application merely broadens the scope of the copending application by eliminating the limitation "wherein the second means for determining is repetitively used for transmission of second data packets that each occur subsequent to receipt by the second means for receiving of first data packets that are repetitively transmitted by the first transceiver".

It would have been obvious to one having ordinary skill in the art at the time invention was made to eliminate limitations that are not unnecessary for their invention and to rephrase elements so long as the unit or element under different name would perform the same function. Furthermore, it has been held that the omission of an

element and its function is an obvious expedient if the remaining elements perform the same function as before. *In re Karlson*, 136 USPQ 184 (CCPA).

Regarding claim 44, Meng discloses transmitting data at a first power level and a first data rate from a first transceiver to a second transceiver; receiving the data at the second transceiver; sensing the received power level of the received data; determining a second data rate different from the first data rate at which to transmit other data, said second data rate determined based upon the received power level of the received data; and transmitting the other data at the second data rate and a second power level, from the second transceiver to the first transceiver; and further including the steps of: receiving the other data at tile first transceiver (**claim 38; transmitting data at a first power level and a first data rate from a first transceiver to a second transceiver; receiving the data at the second transceiver; sensing the received power level of the received data; determining a second data rate different from the first data rate at which to transmit other data, said second data rate determined based upon the received power level of the received data; transmitting the other data at the second data rate and a second power level, from the second transceiver to the first transceiver; and further including the steps of: receiving the other data at the first transceiver**).

The instant application merely broadens the scope of the copending application by eliminating the limitation "sensing the received power level of the received other data; determining a modified first data rate from the received power level of the

received other data; and transmitting further data from the first transceiver to the second transceiver at the modified first data rate”.

It would have been obvious to one having ordinary skill in the art at the time invention was made to eliminate limitations that are not unnecessary for their invention and to rephrase elements so long as the unit or element under different name would perform the same function. Furthermore, it has been held that the omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before. *In re Karlson*, 136 USPQ 184 (CCPA).

Regarding claim 45, Meng discloses wherein the second power level is different than the first power level (**claim 63; wherein the first power level is greater than the second power level**).

Regarding claim 46, Meng discloses a first transceiver and a second transceiver comprising the steps of: transmitting data at a first power level and a first data rate from a first transceiver to a second transceiver; receiving the data at the second transceiver; sensing the received power level of the received data; determining a second data rate different from the first data rate at which to transmit other data, said second data rate determined based upon the received power level of the received data, and wherein said step of determining occurs without the occurrence of a specific request for a data rate change; and transmitting the other data at the second data rate and a second power level, from the second transceiver to the first transceiver; and further including the step of: receiving the other data at the first transceiver (**claim 59; transmitting data at a first power level and a first data rate from a first transceiver to a second**

transceiver; receiving the data at the second transceiver; sensing the received power level of the received data; determining a second data rate different from the first data rate at which to transmit other data, said second data rate determined based upon the received power level of the received data, and wherein said step of determining occurs without the occurrence of a specific request for a data rate change; transmitting the other data at the second data rate and a second power level, from the second transceiver to the first transceiver; and further including the step of: receiving the other data at the first transceiver).

The instant application merely broadens the scope of the copending application by eliminating the limitation "sensing the received power level of the received other data; determining a modified first data rate from the received power level of the received other data; and transmitting further data from the first transceiver to the second transceiver at the modified first data rate".

It would have been obvious to one having ordinary skill in the art at the time invention was made to eliminate limitations that are not unnecessary for their invention and to rephrase elements so long as the unit or element under different name would perform the same function. Furthermore, it has been held that the omission of an element and its function is an obvious expedient if the remaining elements perform the same function as before. *In re Karlson*, 136 USPQ 184 (CCPA).

Regarding claim 47, Meng discloses wherein the second power level is different than the first power level (**claim 63; wherein the first power level is greater than the second power level**).

Regarding claim 48, Meng discloses wherein the second data rate is chosen from one of a plurality of predetermined data rates (**claim 78; wherein the steps of transmitting the data at the second data rates that are each chosen from one of a plurality of predetermined data rates**).

Regarding claim 49, Meng discloses wherein the steps of sensing the received power level of the received data and determining the second data rate are performed by the second transceiver (**claim 58; wherein the steps of sensing the received power level of the received further data and determining the modified second data rate are performed by the second transceiver**).

Regarding claim 50, Meng discloses wherein the step of transmitting the other data will transmit at the second data rate that is chosen from one of a plurality of predetermined data rates (**claim 78; wherein the steps of transmitting the data at the second data rates that are each chosen from one of a plurality of predetermined data rates**).

Regarding claim 51, Meng discloses wherein the steps of sensing and determining are performed by the second transceiver (**claim 58; wherein the steps of sensing the received power level of the received further data and determining the modified second data rate are performed by the second transceiver**).

Regarding claim 52, Meng discloses wherein each of the means for transmitting data transmits using the 5.725-5.825 GHz band (**claim 27; herein each of the means for transmitting the data and the further data transmit from first and second repeater transceivers to respective first and second plurality of terminal device transceivers using the 5.725-5.825 GHz band**).

Regarding claim 53, Meng discloses wherein each of the means for transmitting the data transmits using one of the 5.25-5.35 GHz and 5.15-5.25 GHz bands (**claim 28; wherein the first and second pluralities of terminal device transceivers each include means for transmitting first and second portions of second data at respective fourth and fifth data rates to the respective repeater at respective fourth and fifth power levels using one of the 5.25-5.35 GHz and 5.15-5.25 GHz bands**).

Regarding claim 54, Meng discloses wherein the first power level is greater than the second power level (**claim 63; wherein the first power level is greater than the second power level**).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 43-54 rejected under 35 U.S.C. 103(a) as being unpatentable over Schiff (US 6,449,463), hereinafter referred to as Schiff, in view of Javitt et al. (US 5,805,585), hereinafter referred to as Javitt.

Regarding claim 43, Schiff discloses a first transceiver (**figure 1 unit 102; a transceiver**); and a second transceiver (**figure 1 unit 104; a transceiver**), the second transceiver including: second means for receiving the first data (**figure 3 unit 110; a receiver in the transceiver 104**); second means for sensing a received power level of the received data (**figure 3 unit 314; a measurement element in the transceiver 104**).

Schiff fails to explicitly suggest the first transceiver including means for transmitting data at a first power level and a first data rate to said second transceiver, second transceiver including means for transmitting second data at a second power level and a second data rate to said first transceiver; and second means for determining the second data rate at which to transmit the second data, said second data rate determined based upon the received power level of the received data and being different from the first data rate.

Javitt teaches a communication system (**column 3 lines 1-8**) including a transmitting unit sending a signal to a receiving unit in a first communication mode with a first power level and a first data rate (**column 4 lines 29-41**) and changing to a second communication mode with a second power level and a second data rate (**column 4 lines 42-52**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate multi-rate packet data method operable to change communications modes taught by Javitt into the variable loop power control transceiver system disclosed by Schiff. The motivation for such a modification is increasing system performance and efficiency.

Regarding claim 44 Schiff discloses a first transceiver and a second transceiver (**figure 1 units 102 and 104**); receiving the data at the second transceiver (**figure 3 unit 110; a receiver in the transceiver 104**); sensing the received power level of the received data (**figure 3 unit 314; a measurement element in the transceiver 104**); receiving the other data at the first transceiver (**figure 2 unit 108; a receiver in the transceiver 102**).

Schiff fails to explicitly suggest transmitting data at a first power level and a first data rate; determining a second data rate different from the first data rate at which to transmit other data, said second data rate determined based upon the received power level of the received data; and transmitting the other data at the second data rate and a second power level, from the second transceiver to the first transceiver.

Javitt teaches a communication system (**column 3 lines 1-8**) including a transmitting unit sending a signal to a receiving unit in a first communication mode with a first power level and a first data rate (**column 4 lines 29-41**) and changing to a second communication mode with a second power level and a second data rate (**column 4 lines 42-52**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate multi-rate packet data method operable to change communications modes taught by Javitt into the variable loop power control transceiver system disclosed by Schiff. The motivation for such a modification is increasing system performance and efficiency.

Regarding claim 45, Javitt discloses wherein the second power level is different than the first power level (**figure 1 and column 4 lines 8-15; communication mode 12 has a greater power level than communication mode 11**).

Regarding claim 46, Schiff discloses a first transceiver and a second transceiver comprising the steps of (**figure 1 units 102 and 104**): receiving the data at the second transceiver (**figure 3 unit 110; a receiver in the transceiver 104**); sensing the received power level of the received data (**figure 3 unit 314; a measurement element in the transceiver 104**); and further including the step of: receiving the other data at the first transceiver (**figure 2 unit 108; a receiver in the transceiver 102**).

Schiff fails to explicitly suggest transmitting data at a first power level and a first data rate from a first transceiver to a second transceiver; determining a second data rate different from the first data rate at which to transmit other data, said second data rate determined based upon the received power level of the received data; and transmitting the other data at the second data rate and a second power level, from the second transceiver to the first transceiver.

Javitt teaches a communication system (**column 3 lines 1-8**) including a transmitting unit sending a signal to a receiving unit in a first communication mode with

a first power level and a first data rate (**column 4 lines 29-41**) and changing to a second communication mode with a second power level and a second data rate (**column 4 lines 42-52**).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate multi-rate packet data method operable to change communications modes taught by Javitt into the variable loop power control transceiver system disclosed by Schiff. The motivation for such a modification is increasing system performance and efficiency.

Although Javitt suggests the transmitting unit sending an escape sequence to instruct the receiving unit to change communications modes, it would have been obvious to one having ordinary skill in the art at the time the invention was made that the step of determining occurs without the occurrence of a specific request for a data rate change. It has been held that providing an automatic means to replace manual activity, which accomplishes the same result, involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

Regarding claim 47, Schiff discloses wherein the second power level is different than the first power level (**figure 1 and column 4 lines 8-15; communication mode 12 has a greater power level than communication mode 11**).

Regarding claim 48, Schiff discloses the limitations of the base claims and further suggests adjusting the power by a predetermined amount depending on the measured received power of a signal (**column 6 lines 14-31**).

At the time the invention was made, it would have been obvious to one having ordinary skill in the art that the rate at which data can be transmitted is directly proportional to the amount of power. Therefore Schiff explicitly suggests wherein the second data rate is chosen from one of a plurality of predetermined data rates

Regarding claim 49, Schiff discloses the limitations of the base claims and further suggests adjusting the power by a predetermined amount depending on the measured received power of a signal (**column 6 lines 14-31**).

At the time the invention was made, it would have been obvious to one having ordinary skill in the art that the rate at which data can be transmitted is directly proportional to the amount of power. Therefore Schiff explicitly suggests wherein the steps of sensing the received power level of the received data and determining the second data rate are performed by the second transceiver.

Regarding claim 50, Schiff discloses the limitations of the base claims and further suggests adjusting the power by a predetermined amount depending on the measured received power of a signal (**column 6 lines 14-31**).

At the time the invention was made, it would have been obvious to one having ordinary skill in the art that the rate at which data can be transmitted is directly proportional to the amount of power. Therefore Schiff explicitly suggests wherein the step of transmitting the other data will transmit at the second data rate that is chosen from one of a plurality of predetermined data rates.

Regarding claim 51, Schiff discloses wherein the steps of sensing and determining are performed by the second transceiver (**figure 3 unit 104; figure 3 unit 314; a measurement element in the transceiver 104**).

Regarding claim 52, Schiff as modified by Javitt disclose the limitations of the base claim being performed within wireless communication systems.

At the time the invention was made, the FCC made available 300 MHz of spectrum for Unlicensed National Information Infrastructure devices located at 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.725-5.825 GHz, for use in wireless communications. Therefore it would have been obvious to one having ordinary skill in the art that data could be transmitted using the 5.725-5.825 GHz band. The motivation being to share spectrum with incumbent services without causing radio interference to those services.

Regarding claim 53, Schiff as modified by Javitt disclose the limitations of the base claim being performed within wireless communication systems.

At the time the invention was made, the FCC made available 300 MHz of spectrum for Unlicensed National Information Infrastructure devices located at 5.15-5.25 GHz, 5.25-5.35 GHz, and 5.725-5.825 GHz, for use in wireless communications. Therefore it would have been obvious to one having ordinary skill in the art that data could be transmitted using one of the 5.25-5.35 GHz and 5.15-5.25 GHz bands. The motivation being to share spectrum with incumbent services without causing radio interference to those services.

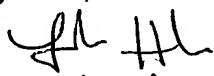
Regarding claim 54, Javitt discloses wherein the first power level is greater than the second power level (**figure 1 and column 4 lines 8-15; communication mode 12 has a greater power level than communication mode 11**).

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Feben M. Haile whose telephone number is (571) 272-3072. The examiner can normally be reached on 6:00am - 3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on (571) 272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


05/03/2007



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